

Patent 6,837,983

10/056316

PATENT

(of C)

IN UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No.: 6,837,983

Docket No: AMAT/6339/CMP/CMP/RKK

Issue Date: January 4, 2005

Patentee: Duboust, et al.

Title **ENDPOINT DETECTION FOR ELECTRO CHEMICAL MECHANICAL
POLISHING AND ELECTROPOLISHING PROCESSES**



REQUEST FOR CERTIFICATION OF CORRECTION

Certificate
MAY 02 2006
of Correction

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

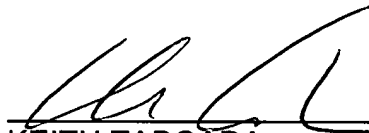
It is requested that a Certificate of Correction be issued correcting printing errors appearing in the above-identified United States patent. Two copies of the text of the Certificate in the suggested form are enclosed.

Issuance of the Certificate of Correction would neither expand nor contract the scope of the claims as properly allowed, and re-examination is not required.

As the error is that of the Patent Office, it is believed that no fee is due.

Respectfully submitted,

April 24, 2006

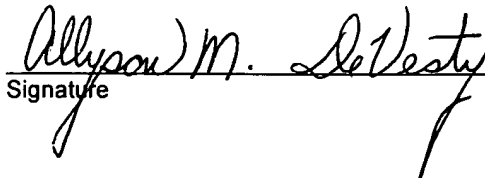

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CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8

The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first-class mail, in an envelope addressed to Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450, on April 25, 2006.

Allyson M. DeVesty
Name


Signature

MAY 3 2006

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

PATENT NO : 6,837,983

Page 1 of (2)

DATED : January 4, 2005

INVENTOR(S) : Duboust et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On page 2, in field (56), under "U.S. Patent Documents", in column 1, line 5, delete "Mayer" and insert - - Mayer et al. - -, therefor.

On page 2, in field (56), under "U.S. Patent Documents", in column 2, line 14, after "Nakamura" insert - - 438/691 - -.

In column 1, line 34, delete "electrochemical" and insert - - electro-chemical - -, therefor.

In column 9, line 66, delete "Includes" and insert - - includes - -, therefor.

In column 10, line 21, delete "Is" and insert - - is - -, therefor.

In column 11, line 33, delete "'voltage mode '" and insert - - "voltage mode" - -, therefor.

In column 14, line 31-33, in Claim 1, delete "providing a cell body defining an electrolyte-containing volume, wherein the electrolyte-containing volume contains at least electrolyte;"

In column 14, line 34-35, in Claim 1, after "polishing pad" delete "at least partially submersed in the electrolyte;"

In column 14, line 61-63, in Claim 7, delete "providing a cell body defining an electrolyte-containing volume, wherein the electrolyte-containing volume contains at least electrolyte;"


In column 14, line 64-65, in Claim 7, after "polishing pad" delete "at least partially submersed in the electrolyte;" and insert - - contacting the substrate disposed on the polishing pad with electrolyte; - -, therefor.

In column 14-15, line 67-1, in Claim 7, after "second electrode" delete "disposed in the electrolyte in order".

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DATED : January 4, 2005

INVENTOR(S) : Duboust et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 15, line 11, in Claim 8, after "disposed" delete "on a floor of the cell body".

In column 15, line 28-29, in Claim 14, after "polishing pad" delete "at least partially submersed in the" and insert - - and an - -, therefor.

In column 16, line 66, below "volume." insert - - 40. An electro-chemical mechanical polishing system, comprising: a processing pad having an upper surface adapted to process the substrate thereon; an electrode disposed below the processing pad; and an endpoint detection system configured to monitor at least one of an increase in voltage or a decrease in current of an electrical signal passing between the electrode and a substrate positioned one the upper surface of the processing pad to detect a processing endpoint.

41. The system of claim 40, further comprising a controller operably connected to the endpoint detection system and the power supply and configured to change a voltage value of the electrical signal upon detection of a change in a slope of the electrical signal by the endpoint detection system.

42. The system of claim 40, further comprising a controller operably connected to the endpoint detection system and the power supply and configured to execute a process recipe comprising a plurality of voltage values for the electrical signal, wherein the controller is configured to select the voltage values according to polishing transition points.

43. The system of claim 40, wherein the pad comprises an electrically conductive medium located on a polishing surface of the pad and wherein a first terminal of the power supply is electrically connected to an electrically conductive medium. - -.

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41. The system of claim 40, further comprising a controller operably connected to the endpoint detection system and the power supply and configured to change a voltage value of the electrical signal upon detection of a change in a slope of the electrical signal by the endpoint detection system.

42. The system of claim 40, further comprising a controller operably connected to the endpoint detection system and the power supply and configured to execute a process recipe comprising a plurality of voltage values for the electrical signal, wherein the controller is configured to select the voltage values according to polishing transition points.

43. The system of claim 40, wherein the pad comprises an electrically conductive medium located on a polishing surface of the pad and wherein a first terminal of the power supply is electrically connected to an electrically conductive medium. - -.

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